

phreys, near Cork. I have before me another individual of larger size (one inch $\frac{7}{8}$ long, and about $\frac{7}{8}$ of an inch broad), but it is very much worn. This last came from the collection of Mr. Bennett. The species approaches in general appearance to some of those *Fusi* which have a short canal.

ART. XI. *Observations on new or interesting Mollusca, contained, for the most part, in the Museum of the Zoological Society.* By W. J. BRODERIP, Esq., F.R.S., &c., Sec. G.S., and G. B. SOWERBY, F.L.S., &c.

(Continued from Vol. IV. p. 379.)

Group.

Tunicata.

Family.

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Genus.

CHELYOSOMA.

Corpus sessile, fixum testa coriacea supernè diviso-laminata indutum.
Orifia conica, utrumque valvulis 6 trigonis clausum.

Specific Character.

CHELYOSOMA MACLEAYANUM.

Ch. elongato-ovatum, basi affixum, supernè planum, octopartitum, laminis striatis, orificiis prominentibus.

Hab. in Oceano Arctico, saxis adhærens.

TAB. III. fig. 4, 5, 6.

This extraordinary inhabitant of the Arctic Seas appears to differ from any of the Tunicata already described. It comes nearest to those *Mollusca* which form Mr. MacLeay's group *Tethya*, but there are no traces of tentacula surrounding the branchial orifice. From the *Thalida* it differs, inasmuch as the mantle seems to adhere to the orifices only, and, instead of a simple valvule, each orifice of *Chelyosoma* is furnished with a complicated one. From the *Ascididæ*, the only simple and fixed family of the *Tethya*, according to MacLeay, it differs, inasmuch as both its orifices are surrounded by six valves, instead of being quadrifid.

Having thus endeavoured to shew the necessity of establishing a new genus at least, if not a new family, let us proceed to describe the animal. There were four specimens, one of which was sacrificed to the inquiry; but decomposition was so far advanced that the ovaries and other viscera were nearly reduced to a shapeless pulp, and we could only trace those parts of the internal structure, which we proceed to lay before our readers.* The mantle appears to adhere only to the orifices, each of which consists of six triangular valvules. Each valvule is furnished with a set of muscular fibres, adhering at one end to the inner surface of the tunic (not of the mantle) and at the other extremity to a small papillary process on the valvule. These muscles appear to be the agents for opening and shutting the valvules. Besides this set of muscular fibres and within them there is another set, which passes laterally from one papilla to another, forming a sphincter, the base of which is hexagonal. [TAB. III. fig. 6.] There are other strong subcutaneous muscular fibres, passing from the edge of the upper part of the tunic to that of the lower, and also from the edge of each of the coriaceous plates which form the upper surface. These appear to be intended to give the animal the power of dilatation and contraction. Externally, the animal is of an oblong cup-shape, adhering by coriaceous processes from the lower part of the cup. The upper surface, which is flat, consists of eight coriaceous, somewhat horny, angular plates. One of these is placed between the two orifices, and, in four specimens which were examined, this was of an hexagonal shape, the sides coming in contact with the orificial valvules being lunated. The plates are so disposed that the branchial orifice is surrounded by three plates, and the anal orifice by four, besides that which is intermediate and abuts upon both. The three plates near the branchial orifice are much larger than the four which are near to the anal orifice. Each of the plates is marked with three or four elevated striæ, parallel to the sides of the plate, and near to them, leaving an area in

* The decomposition, which prevented any thing like an accurate demonstration of the ovaries and other viscera, was, apparently, occasioned by the spirit in which the specimen was preserved not having sufficiently penetrated to the internal parts. This is mentioned, in order to draw the attention of collectors to the necessity of puncturing the external integuments, muscular coats, &c. of such animals as are plunged entire into spirit, in order that it may reach and preserve the viscera.

the centre, and bearing a striking general resemblance to the external plates of a Land-tortoise's shell. The orifices are very small, and are surrounded by six triangular valvules, each transversely striated, and when shut, rising from the surrounding surface in the form of a cone. The lower or cup-like part is formed of a coriaceous substance, with slight traces of separation into plates, but without internal muscular fibre. In one specimen only there were two irregular somewhat horny plates at the external base of the cup, but not so strongly marked as the upper plates. These lower plates were not to be observed in another specimen which was removed for the purpose of examination from the stone to which it was fixed.

The learned and accurate anatomical observations on the natural group of Tunicata, by William Sharpe MacLeay, Esq., (Linn. Trans. Vol. XIV. p. 527.) have done so much in elucidation of the hitherto obscure structure of many of these animals, that the specific name above recorded is but a small tribute to the author of such a valuable memoir.

DENTALIUM FILOSUM.

D. testā gracili, tenui, albā, filis octo longitudinalibus, striis transversis creberrimis; long. $2\frac{6}{10}$ poll. lat. $\frac{2}{10}$ poll.

Hab. ad littora maris ad Tennasserim.

Distinguished from *D. octogonum*, by its much more slender shape, and its thinner shell; instead of the eight angles of that species, it has eight distinct, raised, longitudinal threads. Three specimens of this fine species were lately brought to England by Mr. Hay, who himself picked them up on the coast of Tennasserim.

CY THEREA PLANULATA.

C. testā trigonā, depressiusculā, subæquilaterali; angulis inferioribus rotundatis; pallidè flavicante, radiis numerosis fuscescentibus; intus albidiā, fusco-violaceo varid; dente postico remoto; long. $1\frac{9}{10}$ poll. lat. $\frac{7}{10}$ poll. alt. $1\frac{6}{10}$ poll.

Hab. in littoribus Oceani Pacifici, prope Mazatlan.

A pretty species of Cytherea, which has so much of the general ap-

pearance of a *Mactra*, that it might at first sight be easily mistaken for one. In form it is triangular, nearly equilateral, and somewhat depressed; its base and lower angles are rounded: it is of a pale yellowish colour, with many diverging fuscous rays: within it is white, variegated with brownish violet, and its posterior cardinal tooth is unusually remote.

VENUS DECORATA.

[TAB. SUPP. XL. f. 3.]

V. testa cordato-trigonata, latere postico productiore, albâ, liris longitudinalibus crenulatis sulcisque radiantibus decussatis granulosa, margine crenulato.

Habitat?

This highly decorated shell (the only specimen we have seen) bears some resemblance in its outward ornament to *Arca gradata*. It was brought home in the Blossom. In Mr. Sowerby's collection.

BULINUS BILABIATUS.

[TAB. SUPP. XL. f. 1, 2.]

B. testa acuminato-ovali, anfractibus 5, (ultimo ad basin angulato) costis elevatis obliquis distantibus, pallide fuscâ; aperturâ auriculâ, peristomate reflexo, sinuoso, pone labium lamellifero; columella obtuse uniplicata.

Hab. in Brasiliâ.

We have placed this extraordinary shell under the genus *Bulinus*, being unwilling to add to the list of generic names till we are compelled to do so. But the species is so intermediate in its character between the *Auriculæ* and the *Bulini*, that it might be referred to either with little violence. The mouth of the shell, as well as its general appearance, is unlike that of any of the *Testacea* which we have seen. At a little distance behind the reflected lip rises a shelly plate, which in an earlier state of its existence appears to have formed the right side of the aperture. We have only seen two specimens; but both of these have the same formation which does not seem to be accidental. In the collections of Mr. Bland and Mr. Sowerby.

Both specimens appear to have suffered by exposure to the weather.

CYCLOSTOMA RAFFLESII.

C. testā spirā depressiusculā, anfractibus quatuor rotundatis, supernē striatis, carinis 4 ad 6; umbilico magno; aperturā orbiculari, peristomate reflexo; long. 1 $\frac{3}{10}$ poll. lat. 2 poll.

Hab. in Sumatra.

The first specimens we saw of this fine Cyclostoma were brought to England by Sir Thomas Stamford Raffles, in honour of whom we have named the species. Its upper side is of a fine chestnut colour, prettily varied with white. In its very young state it is quite destitute of the keels, but has only close-set transverse striae: the reflected lip is sometimes of a light orange brown colour.

CYCLOSTOMA PERDIX.

C. testā spirā depressiusculā, acuminatā, anfractibus quatuor, leviter striatis; carinā mediā, aetate obliteratā; aperturā amplā, peristomate reflexo; umbilico mediocri; long. 2 $\frac{1}{2}$ poll. lat. 1 $\frac{5}{10}$ poll.

Hab. in Tennasserim.

A very elegant species, of which a single specimen was brought to England by Mr. Hay, who found it alive in Tennasserim, not far from the shore. It is of a dark chestnut colour, mottled with white, and there is a sutural band of chestnut articulated with white. We have met with other specimens which show that the keel, which is always sharper in the young shell than when at its full growth, is sometimes not developed at an early period.

CONUS SOLANDRI.

[TAB. SUPP. XL. f. 4.]

C. testā cylindraceo-turbinatā, subcoronatā, striis transversis frequenter, basalibus granulosis, fulvā, fasciā mediā albā, castaneo maculatā et punctatā; spirā mediocri, striatā.

Hab. ad Taheite.

The specimens of this pretty Cone, which were brought home in the Endeavour, are in a very bad state, the points of the spires being ground off, apparently for the purpose of stringing them. They are labelled, "Otaheite," in Dr. Solander's hand-writing. Our specimen, which is in high perfection, was brought home in the Blossom; but we know not where it was found. In Mr. Sowerby's collection.

CONUS CYLINDRACEUS.*

[TAB. SUPP. XL. f. 5.]

C. testū cylindraceo-fusiformi, lāvigatā, transversim leviter striatā, striis inferioribus fortioribus, granulosis; spirā rotundato-pyramidalā, mucronatā; colore pallidè fulvo, albo vario.

Habitat?

A single specimen of this curious Cone has come to our hands; it was brought by the Blossom. In its outline it approaches nearest to *C. mitratus* of Lam., and bears a great resemblance to a Terebellum. It is of a pale fulvous colour, having two transverse rows of very irregular white blotches, and several distant and irregular longitudinal white stripes.

(*To be continued.*)

ART. XII. *Observations upon Volvox Globator.* Communicated by W. J. BRODERIP, Esq., F.R.S., &c., Sec. G.S.

I have received from Mr. Stokes the following remarks upon *Volvox Globator*, which will, I think, be interesting to Naturalists.

On the 10th of August, 1828, while observing some aquatic animalcules under a microscope, his attention was particularly attracted by a specimen of *Volvox Globator* of larger size than usual, and remarkable as containing four distinct green globules within it. These, on examination, appeared to be young ones, perfectly formed and quite in contact with each other.

* In reference to a shell, named by us *Conus interruptus*, in the 4th volume of this Journal, page 379, we have to observe, that soon after the publication of that number we found a very different shell figured under the same name, but without any description, in the Supplement to Mr. Wood's *Index Testaceologicus*. Upon examining an individual furnished by Mrs. Mawe (from whose cabinet the shell figured by Mr. Wood is said to have been taken) we have no hesitation in stating our opinion that it is only a variety of *Conus nebulosus* of Solander and Lamarck. Our *Conus interruptus* may, therefore, as it appears to us, retain its name.